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REMARKS

Applicant thanks the Examiner for his thoughtful review of the present application. The status of the claims is as follows:

- a. **Claims 1-27 are Pending** in the present application.
- b. **Claims 7 and 13 have been amended** for clarification.
- c. **Claim 16 has been canceled.**
- d. **Claims 1-27 are rejected.**

i. PRESENT AMENDMENT

Claims 7 and 13 were amended to distinctly point out and particularly claim the subject matter the Applicant regards as his invention.

No new matter has been added with this amendment.

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ii. ARGUMENT

a. Claim Objections

Applicant asserts that **Claims 7 and 13** have been amended to overcome the Examiner's stated objection. Therefore, the Examiner's objection ought to now be withdrawn.

b. Rejection of Claims 16 under 35 U.S.C. §112

Applicant asserts that **Claim 16** has been canceled. Therefore, the Examiner's rejection under **35 U.S.C. §112** ought to now be withdrawn.

c. Rejections of Claims 1-4, 11-15 and 17-27 under 35 U.S.C. §103(a) as being unpatentable (385, 564 References)

A *prima facie* case of obviousness under **35 U.S.C. §103(a)** requires that all claim limitations be taught or suggested by the cited prior art references and there must be a teaching, a suggestion, or a motivation to combine or modify the references to arrive at the claimed invention.

The Applicant respectfully traverses the rejections because all of the limitation of independent **Claims 1, 13, 18, 22 and 23** as amended herein are not taught or suggested by U.S. Patent 6,77,385 to Ohyama and U.S. Patent 5,805,564 to Kobayashi when those references are considered individually or in any combination.

First, Ohyama teaches away from "first and second decoders configured to recover the information, wherein the second decoder recovers the information encoded by the second encoder only if the first decoder cannot recover the information" as recited in the independent claims. Second, the Examiner has used hindsight reasoning to combine the Ohyama and Kobayashi references.

The Ohyama reference discloses a data buffer that receives and temporarily stores data including a product code enabling error correction in first and second directions. An exclusive-OR operation circuit uses an error amount detected by error

correction in the first direction and data stored in a storage element to calculate a first error check result. A PI direction error-checking circuit according to the first error check result performs error check after error correction in the first direction. A PO direction partial error-checking circuit and a PO direction aggregate error-checking circuit use an error amount detected in error correction in the second direction and calculate a second error check result. The first and second error check results are used to generate a final error check result by an exclusive-OR operation circuit.

The Examiner asserts that *Ohyama* teaches a decoding arrangement "wherein the second decoder recovers the information encoded by the second encoding...only if the first decoder cannot recover the information". Col 16, lines 44-47 of *Ohyama* reads:

....Therefore, when the check results exhibit nothing abnormal after error correction with respect to any of PI and PO directions, the information data can immediately be transferred to the host.

Here, the Examiner appears to be equating transferring data to a host after error correction (*Ohyama*) with "...the second decoder recovers the information encoded by the second encoder only if the first decoder cannot recover the information". Applicant is confused as to how the Examiner purports to make this equation and respectfully disagrees. *Ohyama* does not disclose how the information is recovered only that the information is transferred to the host after normal error correction. Applicant accordingly asserts that recovering information encoded by a second encoder **only** if the first decoder cannot recover the information is not taught or suggested by *Ohyama*.

Consequently, since transferring information to a host after normal error correction is clearly different from recovering information encoded by a second encoder **only** if the first decoder cannot recover the information, Applicant asserts that the *Ohyama* reference does not teach or suggest all of the claim limitations of independent **Claims 1, 13, 18, 22 and 23**. Therefore, independent **Claims 1, 13, 18, 22 and 23** are patentably distinct in view of the *Ohyama/Kobayashi* combination of references.

Additionally, for reference structures to be properly combined and thereby render a claimed invention obvious, there must be some motivation for the combination i.e.

there must be some teaching, suggestion, or incentive to make the combination claimed by the appellant. *Northern Telecom, Inc. v. Datapoint Corp.* 15 USPQ2d 1321, 1323 (CAFC 1990). ***Motivation coming from the appellant's own disclosure is not sufficient.*** Nor is it sufficient that those of ordinary skill in the art had the capability to combine the referenced structure or understood the advantages of the combination. Although an Examiner may suggest that the structure of a primary prior art reference *could* be modified in view of a secondary prior art reference to form the claimed structure, the mere fact that the prior art *could* be so modified does not make the modification obvious *unless the prior art suggested the desirability of the modification.* *In re Newell*, 891 F.2d 899, 13 USPQ2d 1248 (CAFC 1989). (Emphasis added.)

In case of the instant application, the Examiner admits that *Ohyama* does not show the arrangements for PI encoding and PO encoding. He then concludes that "it would have been obvious for a person having ordinary skill in the art at the time the invention was made to implement the product code encoding required by *Ohyama*'s DVD product code by means of first and second encoders....an implementation would have been obvious because using first and second encoders is a typical way of generating a product code...". Appellant asserts that since *Ohyama* does not inherently teach or suggest the implementation of "first and second encoders each configured to encode the information, wherein the second encoder has a higher capability than the first encoder" as recited in the independent claims of the present invention, it is hindsight reasoning to argue that it would be obvious to combine the *Ohyama* and *Kobayashi* references since the proposed desirability of the modification of the *Ohyama* reference is motivated solely by the Appellant's disclosure. ***Neither reference suggests a desirability for the proposed modification.*** Therefore, this is clearly insufficient motivation to render the instant invention obvious under **35 U.S.C. §103(a)**. Consequently, independent **Claims 1, 13, 18, 22 and 23** are patentably distinct in view of the *Ohyama/Kobayashi* combination of references and the rejections of independent **Claims 1, 13, 18, 22 and 23** under **35 U.S.C. §103(a)** ought to now be withdrawn.

Claims 2-3, 11, 12, 14-15, 17, 19-21, 24-27 depend from independent **Claims 1, 13, 18, 22 and 23** respectively and inherit all of their limitations. Therefore, **Claims 2-3, 11, 12, 14-15, 17, 19-21, 24-27** are also patentably

distinct in view of the *Ohyama/Kobayashi* combination of references and the rejections of **Claims 2-3, 11, 12, 14-15, 17, 19-21, 24-27** under **35 U.S.C. §103(a)** ought to now be withdrawn.

d. Rejections of Claims 1-15 and 17-27 under U.S.C. §103(a) as being unpatentable (522, 564 References)

The Applicant respectfully traverses the rejections because all of the limitation of independent **Claims 1, 13, 18, 22 and 23** as amended herein are not taught or suggested by U.S. Patent **5,311,522** to *Murakami* and U.S. Patent **5,805,564** to *Kobayashi* when those references are considered individually or in any combination. Specifically, neither *Murakami* or *Kobayashi* discloses "first and second encoders each configured to encode the information, wherein the second encoder has a higher capability than the first encoder..."

The Examiner asserts that *Murakami* discloses inner code parity is eight bytes and outer code parity is four bytes hence *Murakami*'s encoding has a higher capability than *Murakami*'s "first code" encoding. Applicant respectfully disagrees and asserts that *Murakami* does in fact disclose inner code parity is eight bytes and outer code parity is four bytes, however this is in reference to error correction and not encoding. This is shown in *Murakami* Col. 1, lines 44-52 which reads:

....Then, **4-byte outer codes for error correction** and checking are annexed to each vertically extending 64-byte outer code block, as shown in FIG. 3B, and then **8-byte inner codes for error correction** and checking are annexed to each horizontally extending 85-byte inner code block, as shown in FIG. 3C. Double error correction and checking may be realized in this manner by adopting the Reed-Solomon code with the inner codes (93, 85) and the outer codes (68, 64). (Emphasis added)

Applicant accordingly purports that the Examiner's assertion that *Murakami*'s encoding has a higher capability than *Murakami*'s "first code" encoding is incorrect. Consequently, neither *Murakami* or *Kobayashi* discloses "first and second encoders each configured to encode the information, wherein the second encoder has a higher capability than the first encoder.." as recited in

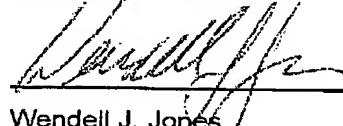
independent Claims 1, 13, 18, 22 and 23. Therefore, independent Claims 1, 13, 18, 22 and 23 are patentably distinct in view of the *Murakami /Kobayashi* combination of references and the rejections of independent Claims 1, 13, 18, 22 and 23 under 35 U.S.C. §103(a) ought to now be withdrawn.

Claims 2-12, 14-16, 17, 19-21, 24-27 depend from independent Claims 1, 13, 18, 22 and 23 respectively and inherit all of their limitations. Therefore, Claims 2-12, 14-15, 17, 19-21, 24-27 are also patentably distinct in view of the *Murakami /Kobayashi* combination of references and the rejections of Claims 2-12, 14-15, 17, 19-21, 24-27 under 35 U.S.C. §103(a) ought to now be withdrawn.

ii. CONCLUSION

Applicant now believes the present case to be in condition for allowance. Therefore, the Applicant respectfully requests a Notice of Allowance for this application from the Examiner.

Respectfully submitted,



Wendell J. Jones

Reg. #45,961